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RESPONSE UNDER 37 CFR 1.116
EXPEDITED PROCEDURE

IN THE U.S. PATENT AND TRADEMARK OFFICE

February 13, 2002

Applicants: Yasuhiro MIYAMOTO et al

For: GREASE COMPOSITION FOR BEARINGS OF INFORMATION DEVICES

Serial No.: 09/625 148 Group: 1764

Confirmation No.: None

Filed: July 25, 2000 Examiner: Howard

International Application No.: N/A

International Filing Date: N/A

Atty. Docket No.: OPS Case 498

Box AF

Assistant Commissioner for Patents
Washington, DC 20231

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TC 1700

REQUEST FOR RECONSIDERATION

Sir:

In response to the Office Action dated September 13, 2001, Applicants respectfully request reconsideration.

REMARKS

Claims 1-6 and 8 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over Claims 1, 5, 6, 8-12, 23 and 25 of co-pending application Serial No. 09/349 465. Applicants will further address this rejection when either the claims of the co-pending application or the present application have been allowed.

Claims 1-6, 8 and 9 have been rejected under 35 USC 103(a) as being unpatentable over Morway et al combined with Doner et al or Tanaka et al. Applicants once again respectfully traverse this ground of rejection and urge reconsideration in light of the following comments.

As pointed out previously, the instant invention is directed to a grease composition which is particularly

suitable for use with lubricating bearings contained in spindle motors employed in peripheral information devices such as hard disc drives, floppy disc drive memories, compact disc drives, magneto-optical disc drive systems, etc., found in computer systems and video tape recorders. The grease compositions of the present invention overcomes the problem of gaseous oil or fine particles of a lubricating grease scattering from the inside of the bearing during the operation thereof to contaminate the inside of the device and result in the malfunction thereof.

The carbonate grease of the present invention requires that the alkyl groups provided therein are distributed concentrically in the range of from 13-15 carbon atoms in order to provide a carbonate composition having improved evaporation and friction torque characteristics. Through the use of the carbonate grease of the present invention, less outgas is generated during the operation of the peripheral information device which results in much lower generation of gaseous oil or fine particles of a lubricating grease being scattered inside a bearing, which improves the operation of the device. It is respectfully submitted that the prior art cited by the Examiner does not suggest the presently claimed invention.

The Morway et al reference discloses synthetic lubricants which can comprise organic carbonates having hydrocarbon radicals with at least eight carbon atoms. As implicitly admitted by the Examiner, there is no disclosure in this reference regarding the claimed requirement that the alkyl residues in the carbonate compound have from 13-15 carbon atoms. If the carbonate compound of Morway et al was used as a lubricant for bearings in a spindle motor as required by the present invention, this low viscosity carbonate would scatter onto a surface of a hard disc, which operates at about 90°C, evaporate and be absorbed to damage the hard disc and deteriorate the operation of the peripheral information

device. As will be shown below, the use of a carbonate compound having alkyl residues with 13-15 carbon atoms provides unexpected superior properties to the presently claimed grease composition. Therefore, Applicants respectfully submit that the presently claimed invention is patentably distinguishable over this reference.

The Doner et al and Tanaka et al references disclose the use of molybdenum dithiocarbamate and molybdenum dithiophosphate as enhancing additives in grease compositions. However, there is nothing in these references which suggests that anything advantageous would occur by using the carbonate composition of the present invention in combination with the enhancing additives disclosed in this reference. As such, Applicants respectfully submit that the Doner et al or Tanaka et al in combination with the Morway et al reference do not render the presently claimed invention unpatentable.

In order to further establish the patentability of the presently claimed invention, Applicants are enclosing herewith a Declaration Under 37 CFR 1.132. In the enclosed Declaration, grease compositions are prepared in which carbonate compounds having carbon residues outside of the scope of the present claims are tested against a grease composition incorporating a carbonate compound having carbon residues within the scope of the present invention. As shown in Table 2 of the enclosed Declaration, the grease composition of the present invention generated outgas in an amount that was from $\frac{1}{2}$ to $\frac{3}{4}$ of the amount of outgas generated by the Comparative Samples which fall within the scope of the base oil of Morway et al. This is clearly unexpected in light of the disclosure of the references cited by the Examiner and establishes the patentability of the presently claimed invention thereover.

The Examiner is respectfully requested to reconsider the present application and to pass it to issue.

Respectfully submitted,

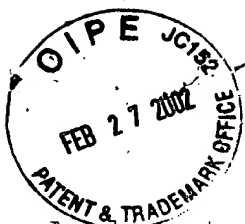

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TFC/smd

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	Brian R. Tumm	Reg. No. 36 328
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Encl: Declaration Under 37 CFR 1.132
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PETITION FOR TIME EXTENSION, AND CERTIFICATE OF MAILING

Sir:

A Response is enclosed.

Pursuant to 37 CFR 1.136(a), please extend the shortened period for response by two months. The extension fee is:

[X] \$400.00 (37 CFR 1.17)

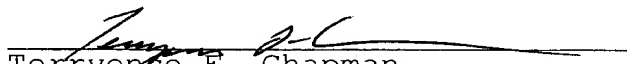
A check for \$400.00 is enclosed to cover fees.

If this Petition is not timely received, please extend the shortened period an additional month. Please credit any overpayment, or charge any additional fee required by this Petition, to Deposit Account No. 06-1382. A duplicate of this Petition is enclosed.

Respectfully submitted,

IN DUPLICATE

TFC/smd


Terryence F. Chapman

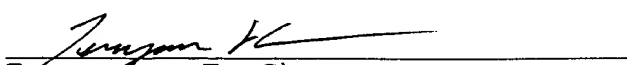
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Encl: Check

Response dated February 13, 2002

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231 on February 13, 2002.


Terryence F. Chapman